

Alok Sinha

B.E. Computer Engineering — Thapar Institute of Engineering & Technology
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About Me

Computer Engineering student with a strong foundation in Data Structures, Algorithms, DBMS, and Machine Learning. Skilled in C, C++, and Python, with hands-on experience in projects such as a movie recommendation system. Eager to apply problem-solving abilities and technical expertise in a software development role.

Education

- **Thapar Institute of Engineering & Technology**, Patiala
B.E. in Computer Engineering (2022 – 2026) CGPA: 6.37
- **Sunbeam School Varuna**, Varanasi
Class XII (CBSE), Passed: 2022 Percentage: 77%
- **Sunbeam School Varuna**, Varanasi
Class X (CBSE), Passed: 2020 Percentage: 75%

Technical Skills and Interests

Languages: C, C++, Python

Databases: SQL, MongoDB

Web Development: HTML, CSS, JavaScript

3D Modelling: SolidWorks, AutoCAD, Blender

CS Fundamentals: Data Structures, Algorithms, DBMS

Tools: Git, GitHub, Postman, Docker, Arduino, VS Code

Projects

- **Student Management System (SQL)**
 - Designed a normalized relational database to manage student records, courses, and results.
 - Implemented SQL queries and procedures for record insertion, retrieval, and report generation.
 - Ensured data integrity using constraints and normalization (up to 3NF).
 - **Technology Used:** SQL, MySQL Workbench
- **Weather App Website**
 - Built a responsive web app to fetch and display real-time weather data using REST APIs.
 - Added city search with error handling and optimized UI for mobile devices.
 - Styled with HTML, CSS, and JavaScript for cross-platform compatibility.
 - **Technology Used:** HTML, CSS, JavaScript, REST API
- **Deep Learning Framework for Protein Interaction**
 - Developed a deep learning model to predict protein–protein binding behavior from sequence data.
 - Preprocessed biological datasets and trained models with multiple hidden layers.
 - Evaluated predictions against benchmarks, improving accuracy over baseline methods.
 - **Technology Used:** Python, TensorFlow, NumPy, Pandas

Achievements & Activities

- Completed multiple personal projects in Machine Learning.
- Active participant in coding challenges on online platforms.
- Contributed to open-source projects on GitHub.
- Secured an **NPTEL Certificate** in *Foundations of Cloud, IoT, and Edge ML*.